



# An open-sourced and interactive ebook development program for minority languages

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Abstract. According to Long (2014), genuine task-based pedagogy is centered around the real-world activities that learners need to complete using the target language. We are developing the OurStories mobile application to support learners and instructors of minority languages in the development of personally relevant, task-based learning resources. The initial prototype, which we are inviting community organizations to use and adapt to their needs, takes the form of an audioenabled ebook as well as the software and a series of templates used for developing future materials. We introduce the OurStories software, its interactive features, and the research-based development process. We also discuss plans to expand the project into a program directed by in-group members of Indigenous language communities who wish to continue the development of pedagogically sound technologies.

Keywords: language revitalization, task-based language learning, computerassisted language learning, open educational resources.

#### 1. Introduction

We are developing a prototype mobile application (app) for collecting spoken language samples as part of a larger research program in technology-supported language revitalization for Indigenous and other minority language communities. The app is to be used in conjunction with a community-centered ebook production process to create audio-enabled Task-Based Language Learning (TBLL) resources. Here, we present the development of our production process and the creation of templates for creating future open-sourced materials.

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### 1.1. Motivation for the project

Today, all Canadian Indigenous languages are endangered (Battiste, 2013). Consequently, Indigenous children are growing up speaking languages other than their heritage language as their dominant language (Norris, 2006). In an effort to revitalize Indigenous languages in North America, organizations such as Native Languages of the Americas (native-languages.org) accumulate resources to be used in teaching or preserving endangered languages. To aid in the creation of locally relevant learning materials, we set out to develop a community-centered ebook production process to serve as a platform for generating open-sourced TBLL resources.

Research has suggested that adding audio for texts used in language revitalization curricula is valuable to vocabulary and phonological development (Grgurović & Hegelheimer, 2007). Additionally, there is a need for language education materials (that will address the needs of parents or other community members who are not proficient in a heritage language) to facilitate heritage language literacy development in children who are solely fluent in colonial languages (Nettle & Romaine, 2000). Recording everyday language use for use in the development of communicative language teaching programs and TBLL resources could be of great use for Indigenous communities, but also for other heritage language communities. Developing tools that are easy to use and adopt will empower community members to exercise their right to independently revitalize their language without the need for ongoing intervention from external researchers or generic textbooks, which are not tailored to reflect local and personal learner needs.

### 1.2. Task-based learning

According to Long (2014), genuine task-based pedagogy concerns real-world activities that learners need to complete using a new language. An example of a TBLL activity is conducting a mock interview in the target language, as the student's goal is to apply for jobs (Long, 2014). A common practice in second language teaching is to select a task according to the linguistic elements required to complete it (e.g. conducting interviews to practise asking questions) rather than selecting tasks on the basis of students' goals (Long, 2014).

Our open-sourced tool is designed so that communities can select tasks important to their needs and then incorporate the language forms required to complete such tasks. Therefore, a needs analysis forms the foundation for the TBLL syllabus specific to the community involved because the target tasks are chosen by the learners.

### 1.3. Learning with OurStories

OurStories is intended to facilitate exchanges between the learner and an experienced speaker of the target language. The learner can adapt existing interview guides with questions or prompts, then record a speaker's responses. The recorded segments can then be used in learning activities, and metadata tags added to audio files can help learners revisit vocabulary in context. The completed application will enable the learners to publish their interviews with labelled audio files as interactive audio-enabled web pages, either as integrated narratives or in question-and-answer formats (Figure 1).

Record Step

Interview guide: Recipe

Story Name

Vour Name

Vour Name

Use interview guide

Show notes

Describe your new Story.

CREATE MY STORY

Record Step

Questions

Tell me about this dish.

Why is this recipe important to you?

How long will it take to make it?

What do you use to make it?

What do you use to make it?

What is the most important step?

CREATE MY STORY

REC

CONTINUE

Figure 1. Sample screens from the OurStories prototype

# 2. Method and design principles

The following principles guided our design for the prototype application.

# 2.1. Providing a constructivist learning environment

According to Oliver and McLoughlin (1999), constructivist learning experiences are characterized by the use of learning tasks that are relevant and authentic, embedded in social experiences, and encourage learner voice and ownership in the learning process.

In pragmatics field research, structured elicitation techniques are often used in interviews to elicit personal narratives, where the topic of discussion and interview guide is designed to elicit the speech events or features of interest. Researchers applying ethnographic methodologies may present previously elicited personal narratives to third parties to elicit further commentary about those narratives (Oliver & McLoughlin, 1999). Our tool provides the learners with structured elicitation interview guides that enable them to elicit learning materials for themselves in a personally relevant social interaction.

#### 2.2. Supporting communicative language teaching

Gatbonton and Segalowitz (2005) argue for a model of communicative language teaching that places the development of automatic fluency as its central goal. They define automatic fluency as a "smooth and rapid production of utterances, without undue hesitations and pauses, that results from constant use and repetitive practice" (Gatbonton & Segalowitz, 2005, p. 326).

Specifically, they propose the ACCESS instructional approach, which stands for Automatization in Communicative Contexts of Essential Speech Segments. In this instructional approach, lessons are structured around target sets of utterances, called essential speech segments, that learners are expected to acquire and practice. Our app is intended to provide structured elicitation opportunities to collect such target utterances.

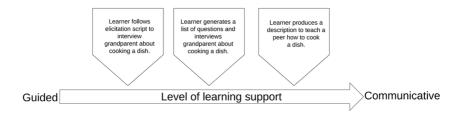
## 2.3. Supporting fluency development with advanced planning

Second language learners' speech production varies in characteristic ways under different task completion conditions. When learners are given time to plan ahead of a production task, they produce more fluent and lexically varied language, and when learners are required to plan online, they produce more grammatically accurate but less lexically rich speech (Yuan & Ellis, 2003). To support learners' development with respect to fluency, complexity, and accuracy, our application and associated instructional materials are intended to facilitate activity completion under varied conditions following TBLL conventions (e.g. Robinson, 2005).

# 2.4. Scaffolding learner development

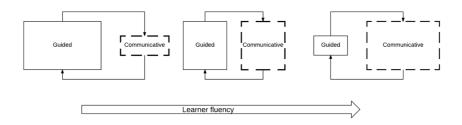
By providing adaptable elicitation scripts for use in the application, we aim to support learning activities that require varied levels of learner independence (for a few examples, see Figure 2).

Figure 2. Examples of learning activities with different levels of learner support



Though TBLL is task-based, guided activities that provide focus on form are seen as being better able to drive accurate proceduralization of L2 skills (Celce-Murcia, Brinton, & Goodwin, 2010; Foster & Skehan, 1996). We propose alternating guided and communicative activities with the focus tending toward more communicative activities as learners' fluency levels increase (see Figure 3). Activity variations afforded by the application are described in the user guide currently under development.

Figure 3. Balancing guided and communicative activities in relation to learner fluency



#### 3. Future directions and conclusions

The OurStories application addresses a need for tools supporting rapid development of task-based learning materials for minority language learners. It has not been tested in a learning environment, which would allow us to explore its potential for integration into curricula.

We hope to explore how visual aids might be integrated into elicitation scripts and incorporated into complementary study aids, such as multimedia quizzes and

audio-enabled flashcards. Further research could explore the usefulness of the application for learners of different languages, and for learners of different ages.

# 4. Acknowledgements

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